

Appl. No. 09/623,604
Amdt. Dated April 14, 2005
Reply to Office action of October 20, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A device for examination, sampling or extraction of the contents of a silo (1) located under a slab (2) pierced by an opening (3), by an organ suspended from a support cable (8) and lowered through the opening (3), comprising at least three guide cables (11) located under the slab (2), converging towards a guide means (13) to which they are hooked at hooking points by crossing the slab (2) by drill holes (12) arranged in a crown and rolled on winches (10) driven by motors, a common control system (14) for the winches (10, 9), the guide means being provided at a periphery thereof with [sliding surfaces] concavities (65) for the support cable which alternate with the hooking points (60) of the guide cables (11), the [surfaces] concavities (65) of the guide means being defined by at least one sliding surface (63) and being concave when linking the hooking points (60) of the guide cables.

2. (original) A device according to Claim 1, characterised in that the motors (15) of the winches (10) are provided with force limiters (19).

3. (original) A device according to Claim 1, characterised in that the motors of the winches are provided with force measurement sensors (21) linked to the control system (14).

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4. (original) A device according to Claim 1, characterised in that the support cable (8) is rolled onto a winch (9) driven by a motor (48) directed by the control system (14).

5. (original) A device according to Claim 1, characterised in that the drill holes (12) are provided with a sleeve (26) provided with a washer (27) with an opening (29) for the passage of a respective guide cable (11).

6. (original) A device according to Claim 5, characterised in that the washer (27) carries rollers (33, 34) defining a guide groove of a respective guide cable (11).

7. (original) A device according to Claim 6, characterised in that the groove is curved and comprises a vertical extremity towards the washer (27) and an oblique extremity directed towards the guide means (13).

8. (original) A device according to Claim 7, characterised in that the sleeves (26) are mounted on the slab so as to pivot, and are driven by motors (36) directed by the control system.

9. (original) A device according to Claim 5, characterised in that the sleeves comprise a second washer (28) with an opening for the passage of a guide cable, the openings (29, 30) of the washers being crossed slits.

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10. (original) A device according to Claim 1, characterised in that the winches (9, 10) comprise drums (17, 43) with a surface cut out with a helicoidal groove (52) for reception of the cables (8, 11) in a single rolled layer.

11. (original) A device according to Claim 10, characterised in that the winches comprise crossbars (31, 53) for pressing on the guide cables, set against the drums.

12. (original) A device according to Claim 1, characterised in that the guide cables are four and the drill holes (12) are arranged in a rectangle.

13. (original) A device according to Claim 1, characterised in that the guide cables are hooked to a guide means by engagement of an loop (62) in a ring (60).

14. (currently amended) A device according to Claim 1, characterised in that the sliding surfaces [(65)] (63) of the guide means (13) are provided with rollers (63) and are convex in the vertical direction.

15. (canceled).

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16. (Previously presented) A device according to Claim 1, characterised in that the opening of the slab is provided with a crown (67) of rollers (70).

17. (original) A device according to Claim 16, characterised in that the crown of rollers is polygonal and mounted on the opening (3) of the slab (2) in such a way as to turn freely.

18. (Previously presented) A device according to Claim 17, characterised in that the crown of rollers is receding downwards and mounted on the opening of the slab with upward and downward supports (69).